REDACTED -- FOR PUBLIC INSPECTION

July 25, 2011

VIA ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, D.C. 20554

Re: *Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Docket No. 11-65

Dear Ms. Dortch:

AT&T and Deutsche Telekom AG (the "Applicants") are jointly filing this letter and the attached analyses in response to the July 20, 2011 letter of Rick Kaplan, Chief, Wireless Telecommunications Bureau. The Applicants demonstrated in their Public Interest Statement, Joint Opposition and supporting declarations that, due to the complementarity of the spectrum and networks of AT&T and T-Mobile USA, as well as the tremendous available synergies, the proposed transaction will relieve significant capacity constraints faced by both companies and lead to improved service quality and expanded output of wireless service, among other public benefits. To provide additional support for the synergies that will result from this transaction, the Applicants conducted a further, more detailed analysis of the likely output and price effects of the proposed transaction, focusing on the extent to which the efficiencies of the proposed transaction will result in lower marginal costs of output and higher quality levels. As explained below, the attached analyses provide further detailed support for and quantification of those

benefits, and confirm the conclusions expressed by Professor Dennis Carlton and his colleagues in their Declarations and in the Applicants' submissions to the Commission.[1]

Professor Carlton and his colleagues have conducted a quantitative Economic Analysis to estimate the likely impact of the proposed transaction on output and quality-adjusted price. That analysis is based on an Engineering Analysis performed by AT&T, described in detail below, which estimates the marginal cost of additional output for each of AT&T and T-Mobile USA as standalone entities and as a combined firm,[2] in 15 sample markets.[3] The Economic Analysis uses the marginal cost projections of the Engineering Analysis to estimate the effects of the

[1] The Applicants are continuing to review and refine these analyses.

[2] Specifically, the Engineering Analysis produces a value for the cost of capacity increases per equivalent MOU based on year-over-year changes in costs and traffic. This value is multiplied by the average usage per subscriber per month to convert it into the cost per subscriber per month for a given year. **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

[3] The 15 CMAs studied, reflecting a mix of larger and smaller markets, are New York, Los Angeles, Washington, D.C., San Francisco, Miami, San Diego, Charleston, SC, Portland, OR, Gainesville, FL, Buffalo NY, Waco, TX, Portland. ME, Boise City, ID, Shreveport, LA, and San Juan, PR. AT&T originally intended to model four RSAs (OK-8 Jackson, MS-1 Tunica, IA-10 Humboldt, KS-1 Franklin) and incorporated "dummy" data for those markets pending incorporation of actual T-Mobile USA data. However, **[Begin Highly Confidential Information]**

[End Highly Confidential Information] the Engineering Model cannot provide meaningful comparisons of UMTS capacity enhancement requirements. Thus, the engineering and economic analysis was limited to the 15 MSAs modeled.

proposed transaction on prices and output in each of the markets through the use of simulation models.[4]

In each market, the merger simulations project that *industry output will rise* and *average price adjusted for quality will fall* as a result of the transaction. This finding of net consumer benefit from the proposed transaction holds for both the baseline assumptions and the assumptions made as robustness checks.

Opponents of the proposed transaction have provided analyses using the Upward Pricing Pressure ("UPP") framework. As the Applicants have previously pointed out, a central failing of the UPP framework is that, when applied one price at a time, it does not account for the downward pressure on one merging party's price created by the efficiencies-induced fall in the other merging party's quality-adjusted price. Nevertheless, the Economic Analysis also presents results using the UPP framework, which does not support the claims of merger opponents that the proposed transaction will increase prices.[5] Because it calculates a full equilibrium for each market, merger simulation *does* incorporate the efficiencies for all products on the full set of post-merger prices, and its results are much more reliable.

The Engineering Analysis is contained in the Microsoft Excel workbook entitled "Network Cost Model." This analysis was developed by AT&T to estimate radio network-related costs that are used as inputs to the Economic Analysis. The Engineering Analysis is designed to estimate and compare the costs of the wireless network capacity enhancements necessary to meet expected demand under two scenarios: (1) AT&T (referred to as "Tesla" in the model) and T-Mobile (referred to as "Mercury" in the model) continue to operate standalone networks, and (2) AT&T and T-Mobile combine to operate integrated networks (referred to as "Option 1" in the model).

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[4] The Engineering Analysis estimates only those marginal cost savings related to radio network costs (capex and opex). It does not calculate other marginal cost savings that are expected to result from the proposed transaction. **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

[5] As is well established, in situations where the UPP indexes have different signs, the UPP results do not establish that either price will rise. *See, e.g.*, Joseph Farrell and Carl Shapiro, "Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition," The B.E. Journal of Theoretical Economics: Vol. 10: Iss. 1 (Policies perspectives), Article 9 at 27 (2010).

The Engineering Analysis includes a "User Guide" which describes the model structure and defines each of the input parameters and how it is used in the model, and a "Control Box" that provides ready, organized access to the user-definable input parameters and to key intermediate calculations and outputs that are displayed in print-ready tables and charts. Although the model is necessarily detailed and complex given the complexity of the real world wireless technologies and network operational environment it is designed to represent, the basic logic and operation of the Engineering Analysis can be understood as follows:

(1) Each market is analyzed separately. The Engineering Analysis currently includes granular data on the characteristics of AT&T and T-Mobile USA networks, and yields detailed calculations for each of the 15 CMAs studied. The model determines the number of (and cost associated with) a series of increasingly costly engineering measures needed to increase network capacity to meet expected demand: **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

(2) Based upon (i) estimated 2011 and 2016 (the last year modeled) subscriber base growth rates, (ii) actual and projected 2016 average monthly usage/subscriber, and (iii) actual and projected 2016 allocation of the subscriber base among the GSM, UMTS and LTE networks, the model estimates a total monthly demand (reported annually) for each of the GSM, UMTS and LTE networks that is modeled. **[Begin Highly Confidential Information]**

[End Highly Confidential Information] Experience with GSM to UMTS migration suggests higher usage increases may occur as subscribers shift to new wireless technologies that provide an enhanced broadband data experience **[Begin Highly Confidential Information]**

[End Highly Confidential Information].

(3) Monthly total voice minutes of use ("MOUs") and data megabytes ("MBs") are converted to busy hour ("BH") Erlangs and Mbps (megabits per second), a measure of peak load demand, using standard engineering formulas and typical relations between monthly total and busy hour demand. Wireless radio networks are designed to ensure that subscribers can access

and use the network successfully (*i.e.*, so that the maximum target call blocking probability can be achieved) during the busiest hour of the day.

(4) **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

(5) Separately for the UMTS and LTE networks, the model then calculates the percentage of sectors (individual "faces" of a cell site) that would be overloaded given expected demand and the optimized spectrum allocation. **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

(6) **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

(7) **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

(8) **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

(9) **[Begin Highly Confidential Information]**

[End Highly Confidential Information]

(10) The model computes the total costs of the capacity expansion necessary to meet expected demand under each of the scenarios by applying the costs associated with each type of capacity expansion **[Begin Highly Confidential Information]**

[End Highly Confidential Information] These financial calculations and results are displayed in the Financials Tab.

(11) Finally, the model converts the total network-related costs of capacity expansion to per subscriber/month marginal cost figures for each of the scenarios (AT&T standalone, T-Mobile standalone, and combined). These calculations and results are displayed in the SubMC Tabs. Differences between the marginal network costs faced by the combined firm and those faced by AT&T and T-Mobile on a standalone basis are used as inputs in the Economic Analysis.

All of the formulae, calculations and the underlying assumptions and data are shown in the Engineering Analysis Excel workbook. The spreadsheet contains separate Tabs for the User Guide, Control Box, the Financials outputs, the SubMC marginal cost outputs and data tables, the input/output details for each of the "Mercury," "Tesla" and "Option 1" scenarios, subscriber count and spectrum allocation tables, and the BH demand forecasts. As noted, the Control Box Tab is the main user interface for the Engineering Analysis, where users of the model can adjust user-defined inputs, including the CMA to be examined and a wide range of input parameters for that CMA.

Enclosed herewith are two versions of the Economic and Engineering Analyses. In each case, we are providing the versions of the analyses as they existed on July 14, 2011. Those results had been previewed by Professor Carlton at the Economic Workshop convened by the Commission staff one day earlier. Since that time, the Engineering Analysis was refined in several respects and extended to an additional ten markets. That updated Engineering Analysis and an updated Economic Analysis based on it are also submitted herewith.

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Pursuant to the Protective Order and Second Protective Order in this proceeding,[6] we are submitting the models to you on the attached CD-ROM. In addition, we are submitting a redacted version of this letter in ECFS (there is no redacted version of the models). Finally, we are submitting two copies of the unredacted version of this letter and the CD-ROM with the models to Kathy Harris of the Wireless Telecommunications Bureau staff or her designee.

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[6] *In re Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Dkt No. 11-65, Protective Order, DA 11-674 (WTB rel. Apr. 14, 2011) ("First Protective Order"); *In re Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Dkt No. 11-65, Second Protective Order (Revised), DA 11-1100 (WTB rel. June 22, 2011), *modified*, DA 11-1214 (WTB rel. July 19, 2011) ("Second Protective Order").

We will be happy to provide the Commission staff with additional information concerning the enclosed analyses and assistance in interpreting it. If you have any questions or require further information, please contact Richard Rosen at 202-942-5499 or Richard.Rosen@aporter.com, or Nancy Victory at 201-719-7344 or nvictory@wileyrein.com. Thank you for your assistance.

Sincerely,

/s/

Richard L. Rosen
Counsel for AT&T Inc.

/s/

Nancy Victory
Counsel for Deutsche Telekom AG

Enclosure

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